

Serial No. 10/565,809

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Amendment dated February 9, 2009

Reply to Office Action of October 7, 2008

### ABSTRACT

There is disclosed a green phosphor that is adaptive for improving its driving voltage and brightness characteristic, and at the same time, improving its color purity. A green phosphor according to an embodiment of the present invention includes a mixed phosphor composed of a first class phosphor of  $\text{Zn}_2\text{SiO}_4\text{:Mn}$ , a second class phosphor of at least one of  $\text{LaPO}_4\text{:Tb}$ ,  $\text{Y}_3\text{Al}_3(\text{BO}_3)_4\text{Tb}$ ,  $\text{Y}(\text{Al}, \text{Ga})_5\text{O}_{12}\text{:Tb}$ ,  $\text{YBO}_3\text{:Tb}$ ,  $(\text{Y}, \text{Gd})\text{BO}_3\text{:Tb}$ , and a third class phosphor of at least one of  $\text{BaAl}_{12}\text{O}_{19}\text{:Mn}$ ,  $\text{BaAl}_{14}\text{O}_{23}\text{:Mn}$ ,  $\text{Ba}(\text{Sr}, \text{Ma})\text{AlO:Mn}$ , and the mixing rate of the third class phosphor to the total weight of the mixed phosphor is 1~25 wt %.